Table S5: Microbiota altered genes shared between OregonR young and CantonS old flies.

CG NUMBER	GENE SYMBOL	GENE FUNCTION	Effect of microbiota on: young guts Oregon R CR/AX	young guts Canton S CR/AX	old guts Canton S CR/AX
GENE EXPRESSION					
CG6246	nub	transcription	2.38	-1.02	1.56
CG14029	vri	transcription	1.94	1.09	1.50
CG4354	slbo	transcription	1.90	1.27	3.85
CG14906	CG14906	transcription	1.53	1.19	1.37
GUT STRUCTURE					
CG16963	Cry	cuticle / PM	4.52	1.29	1.51
CG2054	Cht2	cuticle / PM	3.44	1.22	1.73
CG4978	Mcm7	epithelium renewal	2.48	1.26	1.47
CG11949	cora	epithelial structure	2.34	1.24	2.04
CG3178	Rrp1	epithelium renewal	2.31	1.23	1.43
CG8497	Rhp	epithelial structure	2.11	1.14	1.54
CG31004	CG31004	epithelial structure	2.07	1.29	1.57
CG12946	Whamy	epithelial structure	2.00	1.16	1.43
CG2534	cno	epithelial structure	1.83	1.07	1.52
CG5055	baz	epithelial structure	1.66	1.06	1.70
CG1634	Nrg	epithelial structure	1.57	1.13	1.87
CG7252	CG7252	cuticle / PM	1.47	-1.08	1.56
CG5803	Fas3	epithelial structure	1.33	1.19	1.79
IMMUNE RESPONSE					
CG2086	drpr	phagocytosis	2.02	1.17	1.44
CG6575	glec	effectors	1.78	1.01	2.12
CG11992	Rel	pathways	1.65	1.10	1.42
CG1165	LysS	effectors	-1.34	1.14	-1.35
METABOLISM/DIGESTION					
CG10383	CG10383	lipid metabolism	2.66	-1.29	1.31
CG6330	CG6330	pur/pyr/nucleotide metabolism	2.18	1.29	1.50
CG13893	CG13893	transport	1.66	1.10	1.33
CG10000	CG10000	other enzymatic processes	1.35	1.22	1.82
CG7642	ry	pur/pyr/nucleotide metabolism	-1.32	-1.15	-1.40
CG11340	CG11340	transport	-1.32	-1.27	-1.53
CG5002	CG5002	transport	-1.33	-1.20	-1.40
CG7720	CG7720	transport	-1.33	-1.20	-1.43
CG31075	CG31075	metabolic pathways	-1.36	-1.08	-1.45
CG12512	CG12512	lipid metabolism	-1.37	-1.16	-1.58
CG6580	Jon65Aii	protein metabolism	-1.38	-1.23	-1.61
CG13271	Ugt36Bb	other enzymatic processes	-1.38	-1.06	-1.69
CG15093	CG15093	protein metabolism	-1.41	1.03	-1.32
CG9428	ZIP1	transport	-1.43	-1.27	-1.67
CG4302	CG4302	other enzymatic processes	-1.44	-1.15	-1.39
CG4053	CG4053	protein metabolism	-1.44	-1.28	-1.75

CG31266	CG31266	protein metabolism	-1.45	-1.26	-1.59
CG11162	CG11162	lipid metabolism	-1.46	-1.05	-1.59
CG8299	CG8299	protein metabolism	-1.47	1.01	-1.35
CG15418	CG15418	protein metabolism	-1.48	-1.06	-1.33
CG11236	CG11236	protein metabolism	-1.52	-1.15	-1.64
CG10051	CG10051	protein metabolism	-1.53	-1.25	-1.77
CG12387	zetaTry	protein metabolism	-1.55	-1.23	-1.77
CG8579	Jon44E	protein metabolism	-1.55	-1.13	-2.52
CG18607	CG18607	lipid metabolism	-1.57	-1.06	-1.44
CG13478	shd	lipid metabolism	-1.59	-1.13	-1.32
CG4123	Mipp1	other enzymatic processes	-1.63	-1.14	-1.57
CG15534	CG15534	lipid metabolism	-1.63	-1.28	-1.63
CG13360	CG13360	other enzymatic processes	-1.65	-1.18	-1.38
CG40305	FucTC	other enzymatic processes	-1.67	-1.14	-1.51
CG1946	CG1946	other enzymatic processes	-1.68	-1.12	-2.06
CG17119	CG17119	transport	-1.70	-1.15	-1.38
CG10062	CG10062	protein metabolism	-1.71	-1.25	-1.47
CG17681	CG17681	other enzymatic processes	-1.80	-1.14	-1.41
CG5130	CG5130	transport	-1.85	-1.18	-1.50
CG15096	CG15096	transport	-1.91	-1.10	-1.52
CG5304	l(2)01810	transport	-1.92	-1.07	-1.58
CG31636	CG31636	transport	-1.92	-1.09	-1.60
CG18327	CG18327	transport	-1.93	-1.05	-1.31
CG9394	CG9394	lipid metabolism	-1.95	-1.18	-1.52
CG30354	CG30354	metabolic pathways	-1.96	-1.18	-1.39
CG9512	CG9512	protein metabolism	-1.98	-1.13	-1.64
CG32669	CG32669	transport	-2.00	-1.13	-1.57
CG4501	bgm	lipid metabolism	-2.04	-1.11	-1.37
CG3705	aay	protein metabolism	-2.04	-1.06	-1.54
CG8083	CG8083	transport	-2.05	1.00	-1.31
CG8791	CG8791	transport	-2.13	-1.02	-1.56
CG9416	CG9416	protein metabolism	-2.27	-1.21	-1.37
CG32750	CG32750	vitamin metabolism	-2.27	-1.26	-1.67
CG7025	CG7025	protein metabolism	-2.31	-1.28	-1.89
CG8468	CG8468	transport	-2.41	-1.01	-1.39
CG11128	slif	transport	-2.43	-1.09	-1.38
CG15253	CG15253	protein metabolism	-2.49	-1.23	-1.54
CG7912	CG7912	transport	-2.54	-1.08	-1.62
CG16700	CG16700	transport	-2.65	-1.16	-1.87
CG1131	alpha-Est10	protein metabolism	-2.77	1.02	-1.49
CG9826	CG9826	transport	-2.87	-1.25	-1.56
CG4991	CG4991	transport	-3.22	-1.21	-1.80
CG13813	CG13813	other enzymatic processes	-3.28	-1.05	-1.85
CG30272	CG30272	transport	-3.48	-1.09	-2.32
SIGNALING					
CG18402	InR	InR pathway	2.66	1.11	2.46

CG5212	Pli	other pathways	2.51	1.06	1.33
CG15509	kay	JNK pathway	2.28	1.21	1.67
CG31811	cenG1A	transduction/modulation	2.24	-1.08	1.65
CG11988	neur	Notch pathway	2.07	1.07	1.57
CG14080	Mkp3	other pathways	1.94	-1.02	2.16
CG31794	Pax	other pathways	1.83	1.17	1.73
CG1004	rho	EGFR pathway	1.74	1.12	2.50
CG4637	hh	hh pathway	1.57	1.09	1.90
CG3973	pigs	Notch pathway	1.44	1.06	1.74
CG17077	pnt	EGFR pathway	1.43	1.18	1.73
CG4608	bnl	FGF pathway	1.31	1.02	1.48
STRESS RESPONSE					
CG31543	Hph	hypoxia	2.32	-1.05	1.46
CG33111	CG33111	redox balance	2.01	1.15	1.47
CG30489	Cyp12d1	detoxification	-1.38	-1.28	-1.64
CG9027	CG9027	redox balance	-1.50	-1.15	-1.37
CG9438	Cyp6a2	detoxification	-1.54	-1.16	-1.33
CG15095	l(2)08717	hypoxia	-1.57	-1.29	-1.53
UNKNOWN GENES					
CG17264	CG17264	-	4.46	1.15	1.58
CG8678	CG8678	-	3.23	1.27	1.76
CG11658	CG11658	-	3.12	1.10	1.80
CG5953	CG5953	-	2.95	-1.11	1.74
CG13482	CG13482	-	2.69	1.12	1.36
CG6792	CG6792	-	2.64	-1.06	1.31
CG33469	CG33469	-	2.42	1.25	1.40
CG13598	sba	-	2.36	1.24	1.64
CG18635	CG18635	-	2.23	1.29	1.72
CG15893	CG15893	-	2.15	1.21	1.55
CG42388	CG42388	-	2.14	1.20	1.63
CG8398	CG8398	-	2.14	1.29	1.48
CG1347	CG1347	-	2.11	-1.00	1.38
CG2679	gol	-	2.09	1.28	1.99
CG14302	CG14302	-	2.08	1.06	1.38
CG32556	CG32556	-	2.04	1.09	2.41
CG3703	CG3703	-	2.02	1.18	1.61
CG8965	CG8965	-	1.97	1.28	1.59
CG30082	CG30082	-	1.93	1.27	2.10
CG10106	Tsp42Ee	-	1.77	1.23	1.72
CG6490	CG6490	-	1.66	1.10	1.75
CG42565	CG42565	-	1.63	1.23	1.53
CG13506	CG13506	-	1.62	1.12	1.65
CG30015	CG30015	-	1.49	-1.00	1.42
CG5123	W	-	1.49	-1.27	1.48
CG33146	Mctp	-	1.43	1.21	1.38
CG13511	CG13511	-	1.42	1.00	1.37

CG4393	CG4393	-	1.39	1.01	1.31
CG42388	CG42388	-	1.38	1.09	1.70
CG5073	CG5073	-	1.36	1.06	1.35
CG40198	CG40198	-	-1.30	1.14	-1.37
CG31975	CG31975	-	-1.35	-1.04	-1.36
CG13936	CG13936	-	-1.36	-1.06	-1.44
CG15170	CG15170	-	-1.40	-1.28	-1.47
CG15406	CG15406	-	-1.43	1.11	-1.32
CG9396	CG9396	-	-1.50	-1.21	-1.63
CG10553	CG10553	-	-1.56	-1.03	-1.39
CG10550	CG10550	-	-1.57	-1.17	-1.44
CG3850	sug	-	-1.64	-1.04	-1.46
CG6839	CG6839	-	-1.73	-1.18	-1.45
CG7582	CG7582	-	-1.96	-1.20	-1.45
CG7966	CG7966	-	-2.20	-1.18	-1.67
CG3348	CG3348	-	-2.49	-1.15	-1.87
CG6034	CG6034	-	-2.60	-1.16	-1.46
CG31248	CG31248	-	-2.65	-1.00	-1.42
CG31259	CG31259	-	-2.83	-1.22	-1.31
CG33510	CG33510	-	-2.93	1.12	-1.33
CG32754	vanin-like	-	-3.06	-1.10	-1.46

<-4.0
<-2.0
<-1.3
>1.3
>2
>4
>10